

FOREIGN PATENT – ABSTRACT**ARCH RIB CONSTRUCTING DEVICE FOR CONCRETE ARCH BRIDGE****APPLICANT:** PS Corp.**PATENT APPLICATION NUMBER-** 10320353**PUBLICATION DATE-** 2000-05-26

PROBLEM TO BE SOLVED: To facilitate adaption to a change in gradient to lessen a burden of a temporary bracing by fixing a lateral main beam suspending three expansible rods by pin connection on an existing block, and connecting a constructing bed to a new block to the lower ends of the rods by pins.

SOLUTION: A rear brace rod 30, a main rod 20, a front brace rod 40 are suspended from the right and left ends of a lateral main beam 10 disposed on an existing block 100 by pin connection, and the right and left lower ends are connected. The lower ends of the rear brace rod 30 and main rod 20 are pin-connected by a joint material 25, and the shape of a triangular torus is adjusted by expanding and contracting devices 21, 31 to firmly fix the lateral main beam 10 to the upper surface of the existing block 100. A constructing bed 50 is pin-connected to the lower ends of the main rod 20 and the front brace rod 40 to support a bottom frame support beam 55, a front torus, and a work bench. According to the gradient of an arch rib changed with the progress of construction, the expanding and contracting devices 21, 31, 41 are adjusted to hold the constructing bed 50, and a new block is constructed. The constructing bed 50 serves as a formwork centering and a work scaffold, so that the number of members can be reduced, a burden of temporary diagonal member is lessened and power saving is achieved.

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